Name:

ml1112paper: Solve by factoring (v2)

1. Solve the equation

$$x^2 + 2x - 48 = 0$$

$$(x-6)(x+8) = 0$$
$$x = -8$$
$$x = 6$$

2. Solve the equation

$$x^2 + 5x + 6 = 0$$

$$(x+2)(x+3) = 0$$
$$x = -3$$
$$x = -2$$

3. Solve the equation

$$5x^2 + 8x + 57 = 4x^2 - 6x + 8$$

$$x^2 + 14x + 49 = 0$$
$$(x+7)(x+7) = 0$$
$$x = -7$$
$$x = -7$$

4. Solve the equation

$$7x^2 + 2x - 23 = 6x^2 - 2x - 2$$

$$x^2 + 4x - 21 = 0$$
$$(x-3)(x+7) = 0$$
$$x = -7$$
$$x = 3$$

5. Solve the equation

$$2x^2 - 17x + 21 = 0$$

$$(2x - 3)(x - 7) = 0$$
$$x = 7$$
$$x = \frac{3}{2}$$

6. Solve the equation

$$11x^2 + 63x + 40 = 0$$

$$(11x + 8)(x + 5) = 0$$
$$x = -5$$
$$x = \frac{-8}{11}$$

7. Solve the equation

$$9x^2 + 20x + 5 \;=\; 6x^2 + 6x - 3$$

$$3x^2 + 14x + 8 = 0$$
$$(3x + 2)(x + 4) = 0$$
$$x = -4$$
$$x = \frac{-2}{3}$$

8. Solve the equation

$$14x^2 - 28x + 3 \;=\; 3x^2 - 9x - 5$$

$$11x^2 - 19x + 8 = 0$$
$$(11x - 8)(x - 1) = 0$$
$$x = 1$$
$$x = \frac{8}{11}$$